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BLADDER METASTASIS OF CHORIOCARCINOMA: CASE REPORT

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Choriocarcinoma demonstrates a high incidence of metastasis mostly due to a blood-borne spread. This reason could reflect the fact that there were only 1.1% metastasis to the bladder because of retrograde metastasis in an excellent review of 295 cases with metastasis by Park and Lees[1]. Therefore, the initial presentation of this disease as a painless gross hematuria with clots retention is most unusual.

Case Report

A 42 year-old Japanese female was admitted with a history of painless gross hematuria with occasional clots retentions for 2 weeks in duration. The patient had been in good health up to June 18, 1973 when she had initial episode.

At the time of admission physical examination revealed obese, normally developed woman in moderate distress and suprapubic abdominal mass with tenderness. Temperature was 100.2 F degrees; pulse 98 per minute and regular; respiration 28 per minute and regular; blood pressure 136/78. The laboratory findings were hematocrit 22 per cent, hemoglobin 7.5 gms per cent and white blood count 7,200. The serum electrolytes, BUN, serum creatinine, blood sugar, calcium and phosphorus were within normal limits. The total protein was 5.1 gms per dl with albumin 2.6 gms per dl and globulin 2.5 gms per dl. The liver function tests were in normal range. The blood coagulation systems were within normal limits except for increased prothrombin time. The urine was bloody with few clots. The urine culture grew pseudomonous aerginosa 10^5 per ml.

Review of systems were non-contributory. The patient had no previous serious illness. The patient had been in a normal cycle of 28 days with 5 to 6 days of menstruation of a flow which was described as some what heavy. The patient was the mother of 4 children. Her all children were dilivered at full term and spontaneous vaginal diliveries. At the last pregnancy 3 years ago the patient received curettage at the first trimester.

An emergency IVP on admission showed slight dilatation of the right upper collecting system and multiple filling defects in the bladder (Fig. 1). The repeated IVP after cystoscopy showed no longer dilatation of the right upper collecting system. The chest x-ray on admission revealed unremarkable with several small calcifications (Fig. 2).

An emergency cystoscopy showed that there were many blood clots and the bladder mucosa appeared to be unremarkable except for small mucosal destruction associated with bleeding on the middle of the trigone, approximately 5 mm diameter. The both orifices appeared to be normal in positions, shapes and good peristalsis with an efflux of clear urine. The bladder neck and the urethra were within normal limits. A vaginoscopy and pelvic examination showed a normal cervix and one solitary and non-tender nodule on the right vaginal wall. The patient had not recognized about this nodule. After the cystoscopy the suprapubic abdominal mass disappeared.

In the hospital course the patient received 600 ml transfusion before the TU-biopsy of the trigone of the bladder and the biopsy

Fig. 1. The intravenous pyelogram showes dilated right upper collecting system with multiple filling defects in the bladder and contrast materials of previous upper GI series in the colon.

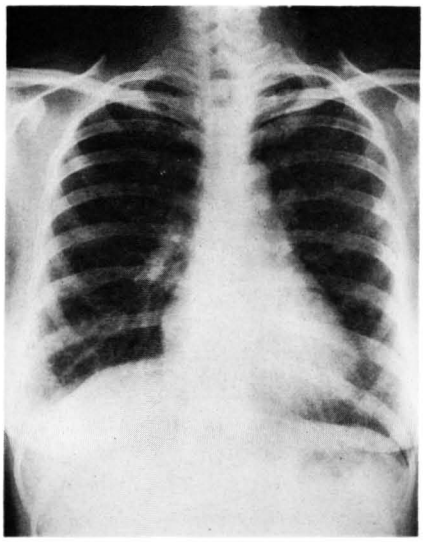

Fig. 2. Preoperative chest film on June 18, 1973.

of the nodule of the vaginal wall on the 5th hospital day. On the postoperative 2nd day the urine was clear. However the patient started to complain of dyspnea with peripheral cyanosis. The urine output started to decrease and general moist rales on chest were audible. At this point the chest x-ray was obtained suggesting pulmonary edema (Fig. 3). The patient received diuretics and digitalization without any improvement of these symptoms. The patient died with cardiac arrest on the 3rd postoperative day. On the same day the results of the biopsies were obtained as choriocarcinoma (Fig. 4).

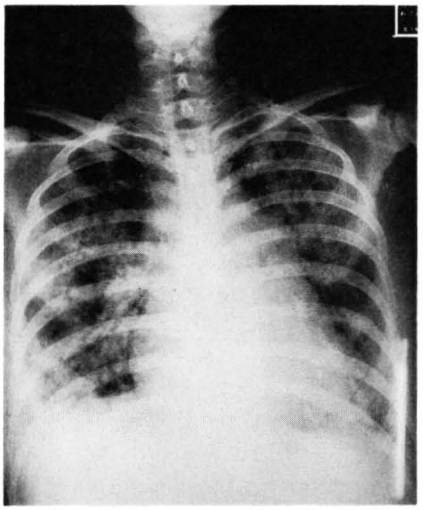

Fig. 3. Postoperative chest film (portable). One week in duration from preoperative chest film Fig. 2.

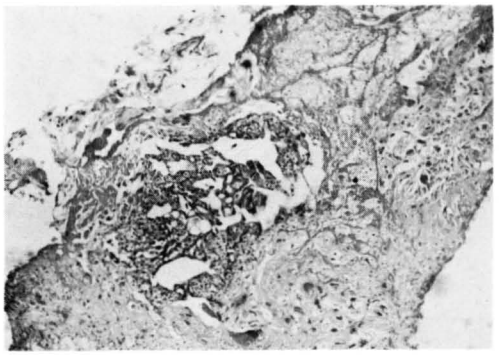

Fig. 4. A histology of the specimen which was obtained with TUR-biopsy of the bladder, showing island of choriocarcinoma cells in submucosa with destruction of transitional epithelium. H & E, (×100)

The patient was submitted to an autopsy. The histological examination revealed choriocarcinoma of the uterus invading the muscle with an intact uterine capsule. No invasion to the bladder was demonstrated even the area of the biopsy. There were disseminating metastasis to the lung with multiple tumorous emboli. It was unable to demonstrate the metastasis to the other

organs including the liver, spleen, ovary or fallopian tubes. The patient primarily died due to the disseminated pulmonary metastasis with multiple tumorous emboli from choriocarcinoma of the uterus.

Discussion

The patient presented a painless gross hematuria with clots retention initially. The IVP showed unremarkable. The cystoscopy demonstrated mucosal destruction which might be missed as the changes of trigonal cystitis. It should be noted that the dissemination of choriocarcinoma could occur to the lung with multiple tumorous emboli within 1 week at most. This could be due to mechanical manipulations such as cystoscopy, biopsy and pelvic examination.

In a review of the English literatures the bladder metastasis of choriocarcinoma as an initial site and symptom is extremely rare[1,2]. The bladder metastasis of choriocarcinoma even in autopsy is rare being only 1.1 per cents (3/263) as much as bone marrow or spinal cord[2]. The venous blood stream from the uterus to the bladder or the vagina should be retrograde anatomically if the bladder or the vaginal metastasis are true metastases in the sense of being embolic and blood borne. Attempts have been made to explain this peculiarly selective behavior by involving a utero-vaginal plexus of vein to be found only in pregnancy. Also multiple emboli and thromboses in the drainage vein of the uterus could lead the retrograde blood flow causing retrograde metastasis.

Summary

A case of choriocarcinoma was presented with its primary and unusual manifestation of the bladder as a painless gross hematuria with clots retentions. The diagnosis was established with TU-biopsy of the bladder and the biopsy of the vaginal nodule on the same day. The patient died on the 3rd postoperative day due to acute dissemination of choriocarcinoma to the lung with multiple tumorous emboli. No direct invasion to the bladder was demonstrated at autopsy.

References

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2) Mele, V. and Pellegrins, A.: Cancro, **22**: 32, 1969.

和 文 抄 録

悪性絨毛上皮腫の膀胱転移の1例

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悪性絨毛上皮腫の他臓器への転移はまれでなく，肺，肝，脳などに多くみられ，死亡の原因となることが多いが，autopsy によっても膀胱への転移は，1.1%と報告されており，しかも初発症状として肉眼的血尿および凝血塊による尿閉をきたすことはきわめてまれである．

今回われわれは，無症候性肉眼的血尿および，凝血塊による尿閉を初発症状とし，当科転院後短期間のうちに，肺への disseminated metastasis をおこし，原因判明の直前に死亡した，悪性絨毛上皮腫の1例を経験したので報告するとともに，子宮原発の悪性絨毛上皮腫の膀胱への転移の可能性，ならびに mechanical な刺激（膀胱鏡，TU-biopsy など）による急激な血行転移の可能性を述べ，無症候性肉眼的血尿は泌尿器科領域において最も重要な症状の1つであり，原因判明を急がねばならない．

（1974年4月30日受付）